

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A plasma processing apparatus comprising:

a plasma processing chamber;

a susceptor installed within the plasma processing chamber, the susceptor ~~being made~~ of comprising an electrically conductive material;

an electrostatic chuck formed on the susceptor for mounting thereon a substrate to be processed;

a ring member directly disposed on the susceptor wherein an innermost circumference of the ring member surrounds a periphery of the substrate to be processed with a gap between the innermost circumference of the ring member and the periphery of the substrate to be processed when the substrate to be processed is mounted on the electrostatic chuck, the ring member comprising an electrically conductive material; and

a lower ring body ~~placed~~ disposed directly below the substrate to be processed and the ring member wherein the lower ring body surrounds a periphery of the electrostatic chuck,

wherein when the substrate to be processed is mounted on the electrostatic chuck, a part of an upper surface of the lower ring body is ~~placed~~ disposed directly below the gap between the innermost circumference of the ring member and the periphery of the substrate to be processed,

wherein the susceptor includes a first surface on which the electrostatic chuck is directly mounted; a second surface on which the ring member is directly mounted; and a third surface on which the lower ring body is directly mounted, the third surface being disposed outside the first surface and inside the second surface, and

wherein a height of an upper surface of the electrostatic chuck is substantially equal to a height of the second surface, and a height of the upper surface of the lower ring body is lower than the height of the second surface.

Claim 2 (Original): The apparatus of claim 1, wherein a ratio of an impedance per unit area of the ring member to that of the substrate to be processed is equal to or less than about 5.

Claim 3 (Original): The apparatus of claim 2, wherein the ratio of the impedance per unit area of the ring member to that of the substrate to be processed is equal to or less than about 3.

Claim 4 (Original): The apparatus of claim 3, wherein the ratio of the impedance per unit area of the ring member to that of the substrate to be processed is equal to or less than about 1.5.

Claim 5 (Currently Amended): The apparatus of claim 1, wherein the ring member is ~~made of~~ comprises a material having an impedance substantially identical to that of the substrate to be processed and a thickness of the ring member is equal to or less than about five times a thickness of the substrate to be processed.

Claim 6 (Currently Amended): The apparatus of claim 1, wherein the ring member is ~~made of the~~ comprises a same material as that forming the substrate to be processed and a thickness of the ring member is equal to or less than about five times a thickness of the substrate to be processed.

Claim 7 (Currently Amended): The apparatus of claim 6, wherein the substrate to be processed is a semiconductor wafer ~~made of~~ comprising silicon and having a thickness of about 0.8 mm and the ring member ~~is made of~~ comprises silicon and has a thickness not greater than about 4 mm.

Claim 8 (Currently Amended): The apparatus of claim 6, wherein the substrate to be processed is a semiconductor wafer ~~made of~~ comprising silicon and the ring member ~~is made of~~ comprises silicon and has a thickness substantially identical to that of the semiconductor wafer.

Claim 9 (Original): The apparatus of claim 1, wherein the ring member is formed of SiC, aluminum having a thermally sprayed coating formed on a surface thereof, quartz or ceramics.

Claim 10 (Original): The apparatus of claim 1, wherein the susceptor includes a conductive lower electrode and the ring member is formed on a surface of the lower electrode by thermal spraying.

Claim 11 (Original): The apparatus of claim 1, wherein the lower ring body serves to protect the susceptor from a plasma generated within the plasma processing chamber.

Claim 12 (Currently Amended): A plasma processing apparatus comprising:  
a plasma processing chamber;  
a susceptor installed within the plasma processing chamber;

an electrostatic chuck formed on the susceptor for mounting thereon a substrate to be processed wherein the electrostatic chuck is formed as one body; and

a ring member disposed to surround a periphery of the substrate to be processed with a gap therebetween wherein the ring member comprises an electrically conductive material,

wherein the whole ring member is located directly on the electrostatic chuck and a lower surface of the ring member is higher than an upper surface of the electrostatic chuck,

wherein the electrostatic chuck has a first surface on which the substrate is directly mounted; and a second surface on which the ring member is directly mounted, the second surface being disposed outside the first surface, and

wherein a height of the first surface is substantially equal to a height of the second surface.

Claim 13 (Canceled).

Claim 14 (Currently Amended): A focus ring disposed on a susceptor to surround a periphery of a substrate to be processed, the susceptor being installed within a plasma processing chamber of a plasma processing apparatus and comprising ~~being made of~~ an electrically conductive material, the focus ring comprising:

a ring member directly disposed on the susceptor wherein an innermost circumference of the ring member surrounds the periphery of the substrate to be processed with a gap between the innermost circumference of the ring member and the periphery of the substrate to be processed when the substrate to be processed is mounted on an electrostatic chuck, the ring member comprising an electrically conductive material; and

a lower ring body ~~placed~~ disposed directly below the substrate to be processed and the ring member wherein the lower ring body surrounds a periphery of an electrostatic chuck formed on the susceptor,

wherein when the substrate to be processed is mounted on an electrostatic chuck, a part of an upper surface of the lower ring body is ~~placed~~ disposed directly below the gap between the innermost circumference of the ring member and the periphery of the substrate to be processed,

wherein the susceptor has a first surface on which the electrostatic chuck is directly mounted; a second surface on which the ring member is directly mounted; and a third surface on which the lower ring body is directly mounted, the third surface being disposed outside the first surface and inside the second surface, and

wherein a height of an upper surface of the electrostatic chuck is substantially equal to a height of the second surface, and a height of the upper surface of the lower ring body is lower than the height of the second surface.

Claim 15 (Original): The focus ring of claim 14, wherein a ratio of an impedance per unit area of the ring member to that of the substrate to be processed is equal to or less than about 5.

Claim 16 (Currently Amended): The focus ring of claim 14, wherein the ring member ~~is made of~~ comprises a material having an impedance substantially identical to that of the substrate to be processed and a thickness of the ring member is equal to or less than about five times a thickness of the substrate to be processed.

Claim 17 (Currently Amended): The focus ring of claim 14, wherein the ring member ~~is made of the~~ comprises a same material as that forming the substrate to be processed and a thickness of the ring member is equal to or less than about five times a thickness of the substrate to be processed.

Claim 18 (Original): The focus ring of claim 14, wherein the ring member is formed of SiC, aluminum having a thermally sprayed coating formed on a surface thereof, quartz, or ceramics.

Claim 19 (Original): The focus ring of claim 14, wherein the ring member is formed at a surface of a conductive lower electrode by thermal spraying.

Claim 20 (Canceled).

Claim 21 (Previously Presented): The apparatus of claim 12, wherein the entire upper surface of the susceptor is covered by the electrostatic chuck.

Claim 22 (Previously Presented): The apparatus of claim 1, wherein the whole lower ring is inserted into a groove formed on the susceptor.

Claim 23 (Previously Presented): The apparatus of claim 1, wherein a thickness of the ring member is substantially equal to that of the substrate to be processed, and a height of an upper surface of the ring member is substantially equal to a height of an upper surface of the substrate to be processed.

Claim 24 (Previously Presented): The focus ring of claim 14, wherein the whole lower ring is inserted into a groove formed on the susceptor.

Claim 25 (Previously Presented): The focus ring of claim 14, wherein a thickness of the ring member is substantially equal to that of the substrate to be processed, and a height of an upper surface of the ring member is substantially equal to a height of an upper surface of the substrate to be processed.

Claim 26 (Previously Presented): The apparatus of claim 12, wherein a height of a lower surface of the ring member is substantially equal to a height of a lower surface of the substrate to be processed.

Claim 27 (Previously Presented): The apparatus of claim 12, wherein the entire ring member is placed on the electrostatic chuck.

Claim 28 (New): The apparatus of claim 1, wherein a thickness of the ring member is equal to or less than 4.0 mm.

Claim 29 (New): The apparatus of claim 12, wherein a thickness of the ring member is equal to or less than 4.0 mm.

Claim 30 (New): The apparatus of claim 14, wherein a thickness of the ring member is equal to or less than 4.0 mm.